

WHAT IS CLAIMED IS:

1. A spray device for a printing press comprising:
a liquid inlet orifice for receiving a liquid;
a gas inlet orifice for receiving a gas disposed downstream from the liquid inlet orifice;
and
an exit orifice disposed at a distance from a surface of the printing press.
2. The spray device as recited in claim 1, further comprising an internal passage communicating with the liquid inlet orifice, the gas inlet orifice, and the exit orifice.
3. The spray device as recited in claim 2, wherein the liquid inlet orifice, the gas inlet orifice, and at least a portion of the internal passage, are defined by an insert member.
4. The spray device as recited in claim 3, wherein the exit orifice is defined by a nozzle tip disposed at a downstream end of the insert member.
5. The spray device as recited in claim 4, wherein the internal passage is defined by the insert member and the nozzle tip, and wherein the gas and liquid are mixed in the internal passage so as to form a gas-liquid mixture.
6. The spray device as recited in claim 4, further comprising a body member having a liquid conduit and disposed at an upstream end of the insert member so that the liquid conduit communicates with the liquid inlet orifice.
7. The spray device as recited in claim 6, further comprising a valve element for enabling a pulsed flow of the liquid through the body.
8. The spray device as recited in claim 7, further comprising a solenoid configured to actuate the valve element.

9. The spray device as recited in claim 1, wherein the surface of the printing press includes a portion of a dampening cylinder.
10. The spray device as recited in claim 1, wherein the liquid is at least one of water and an aqueous fountain solution.
11. The spray device as recited in claim 1, wherein the gas is air.
12. The spray device as recited in claim 1, wherein the gas outside the inlet orifice is at atmospheric pressure.
13. The spray device as recited in claim 1, wherein the gas outside the gas inlet orifice is pressurized to a pressure greater than atmospheric pressure.
14. The spray device as recited in claim 6, further a connecting device removably attached to one of the insert member and the body member for holding the nozzle tip adjacent to the insert member.
15. A printing press comprising a spray device according to claim 1.
16. A method for applying a liquid to a surface of a printing press, the method comprising:
 - providing a liquid to a liquid inlet orifice of a spray device;
 - providing a gas to a gas inlet orifice of the spray device; and
 - spraying a mixture of the liquid and gas onto the surface of the printing press.
17. The method as recited in claim 16, further comprising repeatedly interrupting a flow of liquid through the spray device so as to cause the spraying to be performed in a pulsed fashion.
18. The method as recited in claim 16, further comprising controlling a flow rate of the liquid

through the spray device by changing a size of the liquid orifice.

19. The method as recited in claim 16, further controlling a flow rate of gas through the spray device by changing a size of the gas inlet orifice.

20. The method as recited in claim 16, wherein the spraying is performed using an outlet orifice of the spray device, and further comprising selecting at least one of a size and a shape of the outlet orifice so as to affect a spray pattern.